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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,988	08/30/2000	Michio Kusayanagi	FUJ 17.433	2401

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EXAMINER	
WONG, BLANCHE	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/651,988	KUSAYANAGI ET AL.	
	Examiner	Art Unit	
	Blanche Wong	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 June 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *Mar'06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The allowability of claim 15 has been withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the a path specification means and a path connection means (claim 1), a setting means (claim 3), a labeling means and a transfer means (claim 4), a selecting means (claim 6), an assigning means (claim 7), an extracting means and a path determining means (claim 13), and a switching means (claim 14), must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1, line 10, -- one specified path of the connection request destination – should be replaced with "the one specified path of the connection request destination" in consistent with – specifies one path of a connection request destination – in line 6.

With regard to claim 2, lines 4-5, -- one path of the connection request destination – should be replaced with "the one specified path of the connection request destination" in consistent with claim 1.

With regard to claim 7, lines 3-4, it is unclear what is -- the allocated label number management side --.

With regard to claim 13, lines 5-6, -- uses a connection address – should be replaced with "used the connection address".

With regard to claim 15, lines 11 and 13, it is unclear whether "the connection destination address" and "said connection destination address" are the same as "a connection address" in line 7.

6. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the specified connection destination" in line 7.

Claim 15 recites the limitation "the connection destination address" and "said connection destination address" in lines 11 and 13 respectively.

Claim 15 recites the limitation "the network-side device" in line 12.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1-15** are rejected under 35 U.S.C. 102(e) as being anticipated by Kshiragar et al. (U.S. Pat No. 6,016319).

With regard to claim 1, Kshiragar discloses a layer 2 link handler comprising: **(in DCPA connection setup, col. 5, ln. 18-19)**

a path specification means **(connection server, col. 5, ln. 22)** that specifies one path **(the role of a connection server is to determine an end-to-end route, col. 5, ln. 23-24)** of a connection request destination from layer 2 link information that is emitted from the user-side device **(user information path extending between AAL termination points, col. 5, ln. 26-27)** at the time of a layer 2 link connection request **(connection setup request, col. 5, ln. 34)**; and

a path connection means **(channel server, col. 5, ln. 27)** that causes said permanent virtual connection path of layer 1 connected between said network-said device and the user-side device to connect to the one specified path of the connection request destination **(the role of a channel server is to maintain the state of channels, defined as a point-to-point link on an ATM interface, col. 5, ln. 27-29)**.

With regard to claim 2, Kshirager further discloses said path connection means switching on a layer 2 packet level **(IP, col. 4, ln. 36)**, transfers packets **(transmit a packets, col. 4, ln. 64)** that arrive from said permanent virtual connection path of layer

1 **(a pre-established VCI, col. 5, ln. 2)** connected between said network-side device **(CRP server 203, col. 5, ln. 1)** and the user-side device **(source host 310, col. 4, ln. 67)** to the one specified path of the connection request destination **(request query, col. 5, ln. 1; see also ATM address corresponding to the destination host, col. 5, ln. 3-4)**.

With regard to claim 3, Kshirager further discloses said path connection means includes a setting means **(CRP server)** that newly sets one path **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50)** of the connection request destination specified by said path specification means **(the connection server communicates with channel server how to route its segment of the connection, col. 5, ln. 42-43)** and connects a path between the user-side device and the specified connection destination **(the role of a channel server is to maintain the state of channels, defined as a point-to-point link on an ATM interface, col. 5, ln. 27-29)**.

With regard to claim 4, Kshirager further discloses said path connection means includes a labeling means **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50)** that, based on layer 2 link information emitted from the user-side device at the time of a layer 2 link connection request **(connection request query, col. 4, ln. 60-61; connection setup request, col. 5, ln. 34)**, assigns a label **(VPI/VCI)** of each layer 2 link of said connection request to a layer 2 packet from the user-side device **(source host)**, said path connection means **(the role of a channel server is to maintain the state of channels, defined as a point-to-point link on an ATM interface, col. 5, ln.**

27-29) further includes a transfer means that transfers a layer 2 packet labeled by said labeling means to the path **(VPI/VCI)** to said specified connection destination **(destination host)**.

With regard to claim 5, Kshirager further discloses said path connection means recognizes labels **(VPI/VCI)** of layer 2 packets that arrive from said permanent virtual connection path of layer 1 **(a pre-established VCI)** connected between said network-side device **(CRP server)** and the user-side device **(source host)**, said labels being assigned for each layer 2 link **(VPI/VCI)**, and transfers the layer 2 packets to the path to the specified connection destination that corresponds to given labels **(point-to-point)**, and recognizes labels **(VPI/VCI)** of labeled layer 2 packets that arrive from the path with specified connection destination **(connection request)** and transfers the layer 2 packets to the permanent virtual connection path to the user-side device that corresponds to given labels **(the channel servers respond back to the connection server with the selected VCIs, col. 5, ln. 49-50; see also IP over ATM, col. 7, ln. 37)**.

With regard to claim 6, Kshirager further discloses said labeling means includes a selecting means **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50)** that, when a label is newly assigned to a layer 2 link, selects an arbitrary available label number **(connection admission control algorithm, col. 5, ln. 42-43)(it is inherent that it is an arbitrary available connection and thus VPI/VCI)** and emits a labeled layer 2 packet, and said path connection means handles the link of the labeled layer 2 packet that is assigned the same label number, the link of the labeled layer 2 packet

being sent back from the side of the device that received said labeled layer 2 packet **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50)**, as a link of a pair of said layer 2 link newly assigned a label **(IP address to VCI mapping table, col. 6, ln. 66-67)**.

With regard to claim 7, Kshirager further discloses said labeling means includes an assigning means **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50)** that newly selects a label number **(VPI/VCI)** and assigns said label number including in the label a marking **(accepts/rejects the incoming connection, col. 6, ln. 65-66)** indicating that it is a transmission from the allocated number management side **(CRP server sends message to the destination host with the VPI/VCIs for incoming connections, col. 6, ln. 62-64)**, and handles the link of the labeled layer 2 packet sent back from a reception side with the same label number, to which is added a marking indicating a transmission from the label number non-management side, as a link of the pair of the layer 2 link newly assigned a label **(IP address to VCI mapping table)**.

With regard to claim 8, Kshirager further discloses said labeling means, when it newly assigns a label to a layer 2 link, determines the label number by doing a negotiation mutually with another device side **(connection admission control algorithms, col. 5, ln. 45-46)**.

With regard to claim 9, Kshirager further discloses said labeling means, when it newly assigns a label to a layer 2 link, assigns a label with a label number directed by operation of a network management operation device **(CRP server)**.

With regard to claim 10, Kshirager further discloses said path connection means recognizes the labels of layer 2 packets that arrive from said permanent virtual connection path of layer 1 connected between said network side device and the user-side device, said labels being assigned according to the quality-of-service class of each layer 2 link **(QoS measures, col. 5, ln. 52)**, and transfers layer 2 packets to the path to the specified connection destination that corresponds to the given label **(the role of a channel server is to maintain the state of channels, defined as a point-to-point link on an ATM interface, col. 5, ln. 27-29)**.

With regard to claim 11, Kshirager further discloses said path connection means recognizes the labels of layer 2 packets that arrive from said permanent virtual connection of layer 1 connected between said network-side device and the user-side device **(see also analysis for claim 5)**, said labels being assigned according to the connection destination **(each host is registered, col. 7, ln. 30-31)** of each layer 2 link, and transfers layer 2 packets to a path to the specified connection destination that corresponds to the given label **(see also analysis for claim 5)**.

With regard to claim 12, Kshirager further discloses said path connection means recognizes labels of layer 2 packets assigned according to the distribution type of

service in the IP packet **(IP,IPX, Appletalk, etc, col. 7, ln. 54)** within layer 2 link packets that arrive from said permanent virtual connection path of layer 1 connected between said network-side device and the user-side device, and transfer layer 2 packets to the path to a specified connection destination that corresponds to the given label **(see also analysis for claim 5)**.

With regard to claim 13, Kshirager further discloses said path connection means includes an extracting means that extracts a request connection destination name **(user information path extending between AAL termination points, col. 5, ln. 26-27)** from layer 2 link information emitted from the user-side device at the time of a layer 2 link connection request **(connection setup request, col. 5, ln. 34)** and a conversion table **(IP address to the VCI mapping table, col. 6, ln. 66-67)** that converts from said connection destination name to a connection address, and a path determining means **(connection server, col. 5, ln. 23)** that uses a connection address obtained from said conversion table to cause a path to be connected between the user-side device and the specified connection destination.

With regard to claim 14, Kshirager further discloses processing that specifies one path of the connection request destination from layer 2 link information in said path specification means **(connection server, col. 6, ln. 21)** is done under software control **(connection server software, col. 6, ln. 23)** by a processor **(it is Examiner's position that there is inherently a processor that runs the software)**, and the path connection means **(channel servers, col. 6, ln. 22)** that connects said permanent virtual

connection path of layer 1 connected between said network-side device and the user-side device to a path specified by said processor after said path is specified, is constituted by a switching means **(switch fabric, col. 6, ln. 30)** by means of hardware **(switch SNMP MIB, FORE ATM switches, col. 6, ln. 32)**.

With regard to claim 15, see analysis for claim 13.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW
March 28, 2006

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